

IN THE CLAIMS:

1. A portable data collection terminal comprising:

a base module comprising a first processing unit and a first storage element that stores base module communication software;

a selected one of a plurality of communication modules, each communication module comprising a second processing unit, a second storage element that stores communication module software, and at least one of a plurality of radio transceivers, each of the plurality of radio transceivers having different operating characteristics; and

wherein the second processing unit, using the communication module software, isolates the first processing unit, which uses the base module communication software, from differences in the operating characteristics of the plurality of radio transceivers.

2. The portable data collection terminal of claim 1 further comprising:

a base connector, disposed on said base module, that is electrically connected to said first processing unit; and

a common communication connector capable of matingly attaching to the base connector, disposed on each of said plurality of communication module, that are electrically connected to the corresponding second processing unit.

3. The portable data collection terminal of claim 1 further comprising:

a predetermined set of antennas connected to said base module;
and

5 means for selectively connecting at least one of said plurality of antennas to the selected one of the plurality of communication modules.

4. A portable data collection terminal comprising:

a first processing unit capable of operating per a first set of communication software routines;

a selected one of a plurality of radio transceivers, each of the plurality having different operating characteristics; and

a second processing unit capable of isolating the first processing unit from differences in the operating characteristics of the plurality of radio transceivers.

5. The portable data collection terminal of claim 4 further comprising:

a base module containing the first processing unit; and

a communication module containing the second processing unit

5 and the selected one of the plurality of radio transceivers.

6. The portable data collection terminal of claim 5 further comprising:

a plurality of antennas connected to said base module; and
means for selectively interconnecting at least one of said
5 plurality of antennas to the communication module.

7. The portable data collection terminal of claim 6 wherein
the plurality of antennas are chosen prior to the selection from
the plurality of the radio transceivers.

8. The portable data collection terminal of claim 5 further comprising:

a preinstalled antenna connected to said base module;
an antenna connector capable of connecting a variety of
external antennas; and

means for selectively interconnecting the preinstalled antenna
or the antenna connector to the selected one of the plurality of
radio transmitters.

9. In an RF communications network having a communication
channel, an access point and a portable data collection terminal,
wherein the portable data collection terminal having a transceiver
which may be selectively powered up or down to conserve energy, a
5 method used by the portable data collection terminal for gaining
access to the communication network, comprising the steps:

(a) powering up the transceiver;

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5 of the plurality of radio transceivers and the remaining of the plurality of radio transceivers; and

10 a second processing unit capable of isolating the base processing unit from the differences between the second selected one of the plurality of radio transceivers and the remaining of the plurality of radio transceivers.

20. The portable data collection terminal of Claim 18 further comprising the communication processor comprising:

a base module containing the base processing unit; and

a communication module containing the communication processor and the selected first and second radio transceivers.